

**What Is Claimed Is:**

1. A controlled current source having a control input, in particular for digital/analogue converters in continuous-time sigma/delta modulators, which generates an output current dependent on a control voltage applied to said control input, and having a controller (7) for converting a clock signal into a voltage signal, with said controller (7) being connected to said current source (4) in such a manner that said voltage signal is applied as a control voltage to said control input of said current source (4), wherein said controller (7) is designed to convert said clock signal into a voltage signal which has within a clock duration a reproducible curve ending with a falling flank.
2. A controlled current source according to claim 1, wherein said controller (7) comprises a capacitor and a resistance, which are connected in such a manner that said capacitor is discharged over said resistance to mass, with the voltage over said resistance corresponding to said voltage signal.
3. A controlled current source according to claim 1, wherein said controller (7) comprises a slope converter.
4. A controlled current source according to one of the claims 1 to 3, wherein said current source (4) is formed by at least one transistor whose gate forms said control input.
5. A digital/analogue converter, in particular for continuous-time sigma/delta modulators, having a current source (4) according to one of the claims 1 to 4 for converting a digital signal into a current signal, with said digital signal being connected to said current source (4) or said controller (7).

6. A digital/analogue converter according to claim 5 which is disposed in a feedback branch (3) of a continuous-time sigma/delta modulator.
7. A sigma/delta analogue/digital converter having a sigma/delta modulator which receives a feedback signal via a feedback branch (3),  
wherein  
in said feedback branch (3), a digital/analogue converter (5) according to claim 5 is disposed, whose output current forms said feedback signal.
8. A sigma/delta analogue/digital converter according to claim 7,  
wherein  
said sigma/delta modulator is a continuous-time sigma/delta modulator.
9. A sigma/delta analogue/digital converter according to claim 7 or 8,  
wherein  
said digital/analogue converter (5) is connected to said sigma/delta modulator in such a manner that said feedback signal is applied to one integrator (1) or a multiplicity of integrators (1) of said sigma/delta modulator.
10. A sigma/delta analogue/digital converter according to claim 7 or 8,  
wherein  
said sigma/delta modulator is provided with a Gm-C integrator (6) and said digital/analogue converter (5) is connected to said sigma/delta modulator in such a manner that said feedback signal is directly applied to a capacitor of said Gm-C integrator (6).

11. A method of operating a sigma/delta analogue/digital converter having a continuous time sigma/delta modulator, in which a feedback signal is generated for said sigma/delta modulator by switching on and off dependent on a clock signal of said sigma/delta modulator a current source (4), which supplies an output current dependent on a control voltage, wherein said control voltage of said current source (4) is selected in such a manner that it has within each clock duration a reproducible curve which ends with a falling flank.
12. A method according to claim 11, wherein said output current is directly applied to an input of an integrator (1) of said sigma/delta modulator.
13. A method according to claim 11, wherein if utilizing a Gm-C integrator (6) in said sigma/delta modulator, said output current is directly applied to a capacitor of said Gm-C integrator (6).
14. A method according to one of the claims 11 to 13, wherein a transistor circuit is utilized as said current source (4).
15. A method according to one of the claims 11 to 13, wherein said control voltage of said current source (4) is generated via a resistance-capacitance module.
16. A method according to one of the claims 11 to 13, wherein said control voltage of said current source (4) is generated via a slope converter.